

KAPAS, László

Organizational questions of purchasing agricultural products by the government (supplying the industry with raw materials) after the socialist transformation of agriculture. Elelm ipar 16 no.10:310-314 O '62.

1. Elalmezesugyi Minisztérium, es "Elalmezesi Ipar" szerkeszeti bizottsági tagja.

KAPAS, Laszlo

Role of fodder mixture exchange in the food economy. Elelm  
ipar 19 no.2:43-47 F '65.

1. Institute of Food Industry "economics and Organization,  
Budapest, and Editorial Board Member, "Elelmezesi Ipar."

KAPAS, Laszlo

Long-range scientific research plan for raw material supply.  
Elelm ipar 17 no.8:257-262 Ag '63.

1. Elelmiszeripari Ipargazdasagi es Uzemszervezesi Intezet;  
"Elelmezesi Ipar" szerkeszto bizottsagi tagja.

KAPAS, László

Results in the long-range scientific research on raw material supply. Elelm ipar 18 no.10:307-311 0 '64.

1. Institute of Food Industry Economics and Organization,  
Budapest.

KAPAS, Magdolna; MARFAI, Arpad

Some problems relating to the private constructions and private  
small-scale construction industry. Stat szemle 40 no.12:1224-1239  
D '62.

1. Kosponti Statisztikai Hivatal foelsoadoja (for Kapas).
2. Kosponti Statisztikai Hivatal osztalyvezetochelyettese (for  
Marfai).

KAPAS, G., Gati, J.

Grooving pipe rolls with a constant inner diameter and external diameter variable per section. p. 170.  
(KOMASZATTI LAPOK. Vol. 12, no. 1/5, Apr/May 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.  
Uncl.

GATI, Jeno, kohomernok; KAPAS, Otto, gopeszmernek

Grooving of rolls for pipes with constant internal  
and with ~~sectionally~~ variable external diameter. Koh lap 12  
no. 4/5:170-175 Ap-My '57.

COUNTRY : HUNGARY  
CATEGORY : Cultivated Plants. Forage Plants.  
ABS. JOUR. : RZhBiol., No. 23 1958, №. 104737  
AUTHOR : Kapas, S., Keleman, I.  
INST. : ~~Magyar Mezogazdasagi Kutato Intezete~~  
TITLE : Variety Trials of Corn for Silage.  
ORIG. PUB. : Magyar mezogazd., 1958, 13, No. 6, 6-7  
ABSTRACT : No abstract.

M

Card: 1/1

76

KAPATSIM, G.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000520420013-4  
For lighting. Zn. 104737. No. 104737 (MIRA 16:11)

1. Zamestiteli' nachal'nika Otdela reguliressaniya ulichnogo  
dvizheniya i Gosudarstvennyy avtomobil'noy inspeksii po  
g. Moskve Ispolnitel'noye komiteta Moskovskogo gerochskogo  
soveta deputatov trudyashchikhsya.

KAFANINA, V., doktor, laureat Gosudarstvennoy premii; DZHURZHIU, T.  
[Chorchishv, T], doktor.

Use of aerosols in veterinary medicine. Veterinariia 36 no.5:  
41-45 by '59. (M. 12:7)

1. Veterinarnyy voyennyy hospital', Bukharest.  
(Aerosols) (Veterinary medicine)

KAPATSINSKAYA, A. A.

25854. KAPATSINSKAYA, A. A. Metody vyvodeniya novay porody  
ovets v Gor'kovskoy oblasti. Sov. zootekhnika, 1949, No. 4, S. 63-69.

So. Letopis' Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

KAFATSIISKAYA, A. A.

"Gorkiy Meat and Wool Producing sheep and Methods of Exploiting Them." Dr. Agr Sci, All-Union Sci-Res Inst of Animal Husbandry, Gor'kiy, 1954. (RZhEJ-L, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)  
SO: Sum, No. 598, 29 Jul 55

KAPATSIKAYA, A. A.

14-57-6-12982

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,  
p 166 (USSR)

AUTHOR: Kapatsinskaya, A. A.

TITLE: Mutton and Fleece Production in the Collective Farms  
of the Gor'kovskaya Oblast' (Myasosherstnoye ovtse-  
vodstvo v kolkhozakh Gor'kovskoy oblasti)

PERIODICAL: Ovtsevodstvo, 1956, Nr 8, pp 15-20

ABSTRACT: The collective farms of the Gor'khovskaya oblast' have  
been experimenting in breeding their Gor'kovskiy  
mutton and fleece strain which was developed by  
crossing the local thick-fleeced variety with Hampshire  
sheep.

Card 1/1

KAPATSINSKAYA, Antonina Aleksandrovna, prof.; TARASOVA, K.A., red.; NEM-  
CHENKO, L.I., tekhn. red.

[Sheep farming in Gorkiy Province] Ovtsevodstvo Gor'kovskoi ob-  
lasti. Gor'kii, Gor'kovskoe knizhnoe izd-vo, 1960. 174 p.  
(MIRA 14:7)

(Gorkiy Province—Sheep)

KAPATSINSKAYA, L.A.; SYROMYATNIKOV, N.G.

Use of ion exchanging resins in the radiochemical analysis of natural objects. Report no.1: Concentration and separation of natural radioactive elements using the KU-2 cationite. Vest. AN Kazakh. SSR 14 no.4:60-66 Ap '58. (NIRI 11:6)  
(Radioactive substances) (Ion exchange)

SYROMYATNIKOV, N.G.; EYRISH, M.V.; MUKASHEV, F.A.; KAPATSINSKAYA, L.A.;  
DEMENT'YEV, V.S.

Determination of the isotopic composition of thorium in natural  
formations. Radiokhimiia 5 no.2:164-170 '63. (MIRA 16:10)

SYROMYATNIKOV, N.G.; KAPATSIINSKAYA, L.A.

Thorium content of underground water. Vest.AN Kazakh.SSR 16  
no.1:83-84 Ja '60. (MIRA 13:5)  
(Water, Underground)  
(Thorium)

SYROMYATNIKOV, N.G.; MUKASHEV, F.A.; KAPATSINSKAYA, L.A.

Determination of  $\text{MgTh}_1$  by measuring  $\beta$ -radiations of  $\text{MgTh}_2$   
in a radium preparation from which foreign radioelements were  
removed. Radiokhimiia 5 no.3:356-360 '63. (MIRA 16:10)

(Radium isotopes—Analysis)  
(Actinium isotopes—Analysis)  
(Beta rays)



KAPATINSKY S.V.

Refining crude oil from Svyatot Island. A. Meshcheryakov and S. Kapatsinskii. Neftegaz. Akad. 1950, No. 8, 47-60. The Svyatot Island crude oil contains aromatic compounds 31.0, unsatd. hydrocarbons 5.0, methyl-  
ane-naphthalene hydrocarbons 22.7 and naphthenic acids 1.3-1.63% (acid no. 100) was neutralized with NaOH (0.25-0.4%) in the presence of "acid oil" (0.2%). It yielded high-grade distillates, which were refined with greater ease than distillates not neutralized. The alkali sludge was high in unsaponifiable matter and resins. A. A. Bulgakov

KAPATINSKIY S.V.

ca

22

The cause of corrosion during the refining of the Neftegorsk crude oil, S. V. Kapatinskiy, No. 1037, No. 2, 1937. The corrosion is due to the action of salts, water,  $H_2S$  and possibly  $HCl$ . The corrosion occurs only where salts are dissolved, i.e., in the kerosene tower and the condenser. Dehydration of the crude oil does not permit lowering its ash content, since the oil will not form stable emulsions with the crude oil. The crude oil should not be washed with water, but should be neutralized with  $NaOH$  or treated with caustic alkaline.

V. A. Belyaev

KAPATSINSKY S

22

Catalysts used in the accelerated oxidation of asphalt  
by A. A. Bochting. Voprosy Khimicheskoy Promst. No 3, 1962, p. 21-23. The  
oxidation of petroleum bitumens is accelerated in the presence  
of catalysts such as  $\text{Ca}(\text{OH})_2$  and  $\text{Ca}$  naphthenate  
under lab. conditions. However, under refinery conditions  
catalysts are undesirable, because they increase the  
process temp.; this results in an inferior asphalt and causes  
difficulties in controlling the process because of the exo-  
thermal reaction. A. A. Bochting

850-118 METALLURGICAL LITERATURE CLASSIFICATION

*KAPATSINSKIY*

CA

22

Mixed oil emulsion for greasing bread pans. G. L. Karpinski and J. L. Karpinski, U.S.P. 27,307, Oct. 31, 1946. Squalic acid of machine oil distillate is treated with caustic  $\text{H}_2\text{SO}_4$ , during stirring with air, and allowed to settle; the acid oil is decomposed into a soaps, and neutralized with  $\text{Ca}(\text{OH})_2$ . The resulting stable emulsion is used for greasing bread pans. M. Hesch

M. Hause

KAPATSINSKIY, S.V.; LIPKIND, B.A.; KOZLOVA, T.Ye.; MALINA, A.S.

Crimean bentonites as raw materials for the production of  
oil purification cracking catalysts and adsorbents. Bent.  
gliny Ukr. no.3:89-98 '59. (MIRA 12:12)

1. Gor'kovskaya optychnaya baza Vsesoyuznogo nauchno-issledovatel's-  
kogo instituta po pererabotke nefti i gaza i polucheniyu  
i kusstvennogo shidkogo topliva.  
(Crimea-Bentonite) (Catalysts) (Adsorbents)

*REF ID: A6514* S. V. *128*

PHASE I BOOK EXPLOITATION

SOV/6246

Soveshchaniye po tsseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tsseolity; polucheniye, issledovaniye i primeneniye  
(Synthetic Zeolites: Production, Investigation, and Use). Mos-  
cow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady)  
Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh  
nauk. Komisiya po tsseolitam.

Resp. Eds.: N. N. Dubinin, Academician and V. V. Serpinskiy, Doctor  
of Chemical-Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P.  
Golub'.

PURPOSE: This book is intended for scientists and engineers engaged  
in the production of synthetic zeolites (molecular sieves), and  
for chemists in general.

Card 1/10 (3)

## Synthetic Zeolites: (Cont.)

SOV/6246

COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensoveta, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow individual articles.

## TABLE OF CONTENTS:

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| Dubinin, M. M. Introduction | 5 |

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## Synthetic Zeolites: (Cont.)

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Belotserkovskiy, G. N., K. G. Ione, and T. G. Plachenov. Production of Granular Synthetic Zeolites and Study of Their Porous Structure 174

Plachenov, T. G., G. N. Belotserkovskiy, V. F., Karel'skaya, ~~B. A. Lipkind~~, and L. I. Figurova. Investigation of the Secondary Porous Structure of Synthetic Zeolites and Their Drying Properties 182

~~Lipkind, B. A.~~, V. A. Burylov, ~~R. V. Ivanatsinskii~~, and A. T. Slepneva. Granulation of a Synthetic Zeolite Desiccant 191

Kanavets, P. I., A. E. Sporius, P. N. Melent'yev, A. I. Narum, G. A. Bokushava, V. I. Chernykh, and L. B. Khandros. Production of Strong Spherical Granules of Crystalline Zeolite Powders 195

Card #10 3/3

YEVDOKIMOV, I.G.; KALABIN, M.M.; KAPATSKIY, N.A., kand. fiz.-matem.nauk, otv. red.; LEBEDEVA, I.A., red.

[Physics; textbook for students entering the Leningrad Institute of Construction Engineers] Fizika; uchebnoe posobie dlia postupaiushchikh v LISI; Leningrad, Inzhenerno-stroite. in-t, 1963. 154 p. (MIRA 17:4)

KAPCHENKO, L.N.

Natural synthesis of crustal hydrocarbons. Trudy VNIGRI no.212.  
Geokhim.sbor. no.8:41-56 '63.

"Petroleum drops" in mineral crystals.      Ibid.:57-65 '63.  
(MIRA 16:12)

KAPCHENKO, L.N.

Hypothesis concerning the concentration of sedimentary-cover  
abyssal caused by the removal of water molecules from solutions.  
Lit. i pol. iskop. no.2:134-140 Mr-Ap '65. (MIRA 18:6)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy  
institut, Leningrad.

KAPCHENKO, L.N.

Genesis of internal chloride brines in the Siberian Platform.  
Geokhimiia no.11:1182-1192 N '(4.  
(MIRA 18:8)

1. All-Union Scientific Research Institute for Geological Petroleum  
Prospecting, Leningrad.

ACC N<sup>o</sup> AT6033194

SOURCE CODE: UR/3158/66/000/036/0001/0010

AUTHOR: Kapchigashev, S. P.; Popov, Yu. P.

ORG: none

TITLE: Determination of level densities and the "a" parameter from data on averaged [neutron] capture cross-sections

SOURCE: Odninsk. Fiziko-energeticheskiy institut. Doklady, FEI-36, 1966.  
Opredeleniye plotnostey urovney i parametra "a" dannykh po usrednennym secheniyam zakhvata, 1-10

TOPIC TAGS: neutron capture, Fermi level, level density, neutron, radiation capture, radiation neutron capture, radiation width, resonance, nucleon state, plasma density

ABSTRACT: Cross-sections of radiation capture of neutrons with energies less than 50 kev, averaged for several resonances, are analyzed to obtain the parameter  $\frac{1}{A}$ . On the basis of radiation widths obtained for the parameter  $\frac{1}{A}$ , measured for different resonances, level densities are computed for nuclei with  $51 \leq A \leq 205$ , and values are obtained for the parameter a, which represents the

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L 09875-67  
ACC NR: AT6033194

density of single nucleon states near the Fermi level. The results agree with data obtained on low-lying resonances. The general pattern of the relationship  $a(A)$  was found to be in accord with the theoretical curve obtained by Abdel'malik and Stavinskiy. The authors thank F. I. Shapiro for his interest in their work and valuable comments. Orig. art. has: 8 formulas, 1 table, and 1 figure. [Authors' abstract]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 014/

Card 2/2

|  |               |                                    |                             |      |        |
|--|---------------|------------------------------------|-----------------------------|------|--------|
| REF ID: A67124   |               | EF(1)-2/EWP(6)/EWT(1)/BDS          | AIFTC/ASD/SSD               | Pu-4 | WW/JD/ |
| JG   | ACCESSION NR: | AP3005219                          | S/0089/63/015/002/0120/0126 |      |        |
| AUTHOR:  |               | Kapchigashev, S. P.; Popov, Yu. P. | 18<br>66                    |      |        |
| TITLE: Capture cross sections of <u>neutrons</u> with energies up to 50 kev by certain construction materials 19   |               |                                    |                             |      |        |
| SOURCE: Atomnaya energiya, v. 15, no. 2, 1963, 120-126   |               |                                    |                             |      |        |
| TOPIC TAGS: capture cross section, neutron slowing down, nickel, copper, molybdenum, tungsten, neutron spectrometer, resonance, proportional counter, fast neutron, thermal neutron, neutron capture, reactor design, construction material, lead  |               |                                    |                             |      |        |
| ABSTRACT: The effective capture cross sections of neutrons with energies up to 50 kev were measured in nickel, <u>copper</u> , molybdenum, and <u>tungsten</u> by means of a neutron spectrometer based on the neutron slowing-down time in <u>lead</u> . The operating principle of the spectrometer and the measuring method have been described previously (Yu. P. Popov and F. L. Shapiro. Zh. eksperim. i teor. fiz., v. 42, 988 (1962); N. T. Kashukayev, Yu. P. Popov, and F. L. Shapiro. Sb. Neytronnaya fizika. M., Gosatomizdat, 1961, p. 354; Yu. P. Popov and F. L. Shapiro. Zh. |               |                                    |                             |      |        |
| Card 1/63  |               |                                    |                             |      |        |

L 17307-63  
ACCESSION NR: AP3005219

3

eksperim. i teor. fiz., v. 40, 1610 (1961)). The dependence of an effective neutron capture cross section on energy for nickel and copper is shown in Fig. 1 of the Enclosure. Nickel specimens were made of various types of metallic nickel and nickel oxide. The results indicate that for nickel at energies from about 1.5 kev to 0.8 ev, the capture cross section dependence is in accordance with the  $1/v$  law. The small peak at  $E \approx 150$  ev is possibly due to the presence of cobalt in the nickel. The deviation of the capture cross section in copper from the  $1/v$  law at  $E > 150$  ev indicates the presence of resonance with negative-level energy in one of the copper isotopes. The energy dependence of the neutron capture cross section in molybdenum was studied for six specimens of various thickness and five different types of metal. The different thicknesses of specimens made it possible to determine the effect of self-shielding and to demonstrate that this effect is absent at  $E > 1$  kev. The use of different types of molybdenum indicated that low peaks on the cross-section curve (Fig. 2 o: Enclosure) are due to impurities. For example, the presence of about 0.35% tungsten contributed 1.2 barn to the resonant integral of neutron capture in molybdenum. The capture cross sections in tungsten were measured with five specimens of various thicknesses and three different types of metal. The results

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for tungsten are shown in Fig. 3 of Enclosure. "The authors express their deep appreciation to F. L. Shapiro for continuous attention to the paper and his valuable advice and to Yu. Ya. Stavisskiy for his assistance. The authors also acknowledge V. A. Konka and S. A. Romanov for their help with the measurements, and Yu. A. Dmitriyenko, S. N. Gubesnov, A. M. Klabukov, and Ye. D. Bulatov for assuring the normal operation of the spectrometer. The authors are also grateful to V. S. Zolotarev and his associates for preparing specimens with separated isotopes." Orig. art. has: 4 figures, 1 table, and 1 formula.

ASSOCIATION: none

SUBMITTED: 23Oct62

DATE ACQ: 06Sep63

ENCL: 03

SUB CODE: NS, PR

NO REF Sov: 014

OTHER: 013

Card 3/63

ACCESSION NR: AP4020337

8/0089/64/016/003/0256/0258

AUTHOR: Kapchigashov, S. P.; Popov, Yu. P.

TITLE: Cross section of capture of neutrons with energy up to 50 kev. by Cr, Cr<sup>50</sup>, Cr<sup>52</sup>, Cr<sup>53</sup> nuclei

SOURCE: Atomnaya energiya, v. 16, no. 3, 1964, 256-258

TOPIC TAGS: neutron capture cross section, Cr nucleus, Cr<sup>50</sup> nucleus, Cr<sup>52</sup> nucleus, Cr<sup>53</sup> nucleus, chromium isotope, neutron, Cr

ABSTRACT: Curves for the energy dependence of neutron radiation capture cross sections with energies up to 50 kev. are shown by the natural mixture of chromium isotopes and Cr<sup>50</sup>, Cr<sup>52</sup>, Cr<sup>53</sup> isotopes measured in a spectrometer with respect to moderation time of the neutrons in lead. Measurements with specimens of varied thickness of the natural mixture indicate that the effect of self-shielding is absent in the entire energy range. Small quantities of the substance did not permit measurements to be conducted with separated isotopes. However, in comparing the values of a cross section for chromium isotopes with cross sectional values for the natural mixture in a range more likely for the self-shielding

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ACCESSION NR: AP4020337

effect ( $Z = 5$  to 6 Kev.), the specimens are thin. Measurements were also conducted with the Cr<sup>54</sup> isotope but due to a very low capture cross section, it is difficult to separate the effect from the background. Therefore, only the upper limit of the resonance integral was carried out. "In conclusion, we are deeply grateful to F. L. Shapiro for his constant attention in the work and to V. S. Zolotarev and his co-workers for having given us the separated chromium isotopes". Orig. art. has: 2 tables, 1 figure.

ASSOCIATION: None

SUBMITTED: 13Aug63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: NP

NO KEY Sov: 005

OTHER: 007

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L 1924-66 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JD/HW/JG/DM  
ACCESSION NR: AP5023775 UR/0089/65/019/003/0294/0296  
539.172.4:539.17.02

AUTHOR: Kapchigashev, S. P.

TITLE: Radiative-capture cross sections of vanadium, zirconium, zirconium super 90, zirconium super 91, and zirconium super 94 nuclei for 1-50,000 ev neutrons

SOURCE: Atomnaya energiya, v. 19, no. 3, 1965, 294-296

TOPIC TAGS: neutron capture, neutron cross section, vanadium, zirconium, thermal neutron, resonance absorption, capture cross section

ABSTRACT: Radiative capture cross sections were measured for vanadium, zirconium, and the separated isotopes Zr<sup>90</sup>, Zr<sup>91</sup>, and Zr<sup>94</sup> with a neutron spectrometer in the 1-50,000 ev range during moderation in lead. From the graphs of  $\sigma(\eta, \nu) = f(E)$ , the capture cross section integral is determined for any energy interval that is not too narrow. The absolute normalization of the cross section for vanadium is based on the capture cross sections of thermal neutrons ( $5.0 \pm 0.01$  barn), and for zirconium, Zr<sup>90</sup>, Zr<sup>91</sup>, and Zr<sup>94</sup>, on the resonance levels of molybdenum and tungsten. The gamma-ray detectors used were proportional and scintillation counters. The resonance absorption integrals obtained are tabulated, and the

L 1924-66

ACCESSION NR: AP5023775

results are compared with those of other authors. "The author is deeply grateful to F. L. Shapiro and Yu. P. Popov for a steady interest in the work and expresses his sincere appreciation to V. S. Zolotarev and co-workers for the separated zirconium isotopes which they kindly supplied." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUMMITTED: 31Dec64

ENCL: 00

SUB CODE: NP

NO REF SOV: 006

OTHER: 006

2/2

APOSTOLOV, B.G., dotsent; KAPCHINSKAYA, T.V.

Effectiveness of prednisolone in treating toxic forms of pneumonia in very young children. Uch. zap. Stavr. gos. med. inst. 12:371-372 '63. (MIRA 17:9)

1. Kafedra detskikh bolezney (zav. dotsent B.G. Apostolov)  
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

KAPCHINSKAYA, Ye.

"Geography of the Ukrainian S.S.R.", textbook for the eighth grade  
of the eight-year school by A.T. Dibrova. Reviewed by E.  
Kapchinskaya. Izv. Vses. geog. ob-va 94 no.4:357-358 Jl-Mg '62.  
(MIRA 15:9)  
(Ukraine—Geography) (Dibrova, A.T.)

KAPCHINSKAYA, Ye.I.

Role of Upper Neogene sediments in the formation of the recent relief as revealed by a study in Kotovsk District, Odessa Province.  
Trudy Od. un. 152 Ser. geol. i geog. nauk no.8:152-158 '62.  
(MIRA 17:9)

KAPCHINSKAYA, Yefrosin'ya Iyanovna. [Kapchins'ka,  
I.E.I.], kand. geogr. nauk; LOMAYEV, O.O. [Lomaiev, O.O.],  
kand. geol.-min. nauk, otv. red.; TUBOLEVA, M.V. [Tubolieva,  
M.V.], red.; MATVIYCHUK, O.A., tekhn. red.

[Our flourishing republic; sketch on the natural features  
and natural resources of the Soviet Ukraine] Nasha kvitucha  
respublika; narys pro pryrodu i pryrodni bahatstva Riadians'-  
koi Ukrains'kyi. Kyiv, Tovarystvo "Znannia" Ukrains'koi R&R,  
1963. 44 p. (MIRA 16:12)  
(Ukraine--Economic geography)

KAPATSINSKIY, Ye. V.

Hemodynamic characteristics in patients operated on under ether-oxygen anesthesia with diprasin premedication. Vest.khir. 86 no.2:71-74 '61. (MIRA 14:2)

1. Iz kliniki voyenno-morskoy khirurgii (nach. - prof. A.A. Bocharov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.  
(PNEUMOTIAZINE) (ETHYL ETHER) (BLOOD--CIRCULATION)

KAPCHENKO, L.N.

Mature of internal chloride brines. Sov.geol. 5 no.3:96-107  
Mr '62. (MIRA 15:4)

1. Lenskaya ekspeditsiya Vsesoyuznogo nauchno-issledovatel'skogo  
geologorazvedochnogo neftyanogo instituta.  
(Brines) (Chlorides)

KAPCHINSKIY, I.M.; KHAYKIN, S.N., redaktor; VORONIN, K.P., tekhnicheskiy  
redaktor

[Methods of the oscillation theory in radio engineering] Metody  
teorii kolebaniii v radiotekhnike. Moskva, Gos. energ. izd-vo, 1954.  
352 p. (MLRA 7:11)

(Oscillations) (Radio)

24.6720

S/089/62/013/003/002/007  
B102/B104

AUTHOR: Kapchinskiy, I. M.

TITLE: Achievement of maximum injection current in a strong focussing proton synchrotron

PERIODICAL: Atomnaya energiya, v. 13, no. 3, 1962, 235-240

TEXT: Though hitherto the greatest acceleration energies attainable in protons have been 25-30 Bev, proton synchrotrons of much higher energies are now being planned and built. In line with this trend, such accelerators are being designed for the maximum attainable injection current strength by adopting a strongly focussing linear accelerator as injector. Their calculation is based on an exact solution to the problem of the Coulomb interaction between the particles in the accelerated beam, taking the final phase volume and the space charge of the beam into account. The following equations serve to determine the trajectories of the particles in the X0Z and Y0Z planes:

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Achievement of maximum injection, ...

S/089/62/013/003/002/007  
B102/B104

$$\left. \begin{aligned} \frac{dr_x}{d\tau^2} + Q_x(\tau) r_x - \frac{F_x^2}{r_x^2} - \frac{2r_a^2}{r_x + r_y} &= 0; \\ \frac{dr_y}{d\tau^2} + Q_y(\tau) r_y - \frac{F_y^2}{r_y^2} - \frac{2r_a^2}{r_x + r_y} &= 0. \end{aligned} \right\} \quad (1)$$

(c.f. I. Kapchinskiy, V. Vladimirskiy, Intern. Conf. on High-energy Accelerators and Instrumentation, Geneva, CERN, 1959, p. 274). Exact numerical solutions are obtained as well as approximations. When  $1 > \cos\mu_0 > 0.3$ , the approximate solution

$$\left. \begin{aligned} r_x(\tau) &= [1 + q_x(\tau)] R_x(\tau); \\ r_y(\tau) &= [1 + q_y(\tau)] R_y(\tau). \end{aligned} \right\} \quad (5)$$

agrees with the exact solution to within 10%.  $\tau = z/S$ , where  $S$  is the length of a focussing period; the functions  $Q_x(\tau)$  and  $Q_y(\tau)$  depend on the external focussing fields and on the h-f accelerating field; they have a period of  $\Delta\tau = 1$ . The modulation functions  $q_x$  and  $q_y$  are periodic solu-

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8/089/62/013/003/002/007  
B102/B104

Achievement of maximum injection ...

tions of the equations

$$\frac{d^2q_x}{d\tau^2} = -Q_x(\tau); \quad \frac{d^2q_y}{d\tau^2} = -Q_y(\tau) \quad (6);$$

setting  $R_x = R_y = R_K$  gives the expressions

$$R_K = \sqrt{\frac{F_0}{\mu_0}} \sqrt{\sqrt{1+h^2} + h} \quad (9),$$

$$\frac{\mu}{\mu_0} = \sqrt{1+h^2} - h \quad (12) \text{ where } \dots$$

$$F_0 = \frac{S \sqrt{1-\beta^2}}{\pi \beta c} V_n; \quad (3);$$

$h$  is the Coulomb parameter of the beam,  $\mu$  the mean cyclic frequency of the transverse oscillations, and  $\mu_0^2 = q_x(y)(\tau)Q_x(\tau)d\tau$ . The concept of "transmittance" is introduced, this being the greatest possible phase volume passing per second at  $h = 0$  for a given channel with a negligibly

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Achievement of maximum injection ...

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small space charge, as found from the equation

$$V_n = \frac{\pi \omega_n a^2}{\sqrt{1-\beta^2}}. \quad (13).$$

When  $h \neq 0$ , it is given by  $V_{kh} = V_k / \sqrt{1+h^2} + h$ . The following equations are obtained when  $\mu_0 = 2\pi v$ ,  $h_{\max} = 1/8Mv$ ,  $R = MS/2\pi$  and  $I_{\lim} = h_{\max} I_a$ :

$$I_{\text{peA}} = \left( \frac{E^2}{E_0^2} - 1 \right) \frac{V_n}{8\pi c R} \frac{m_e c^3}{e}, \quad (18)$$

$$I_{\text{max}} = \left( \frac{E^2}{E_0^2} - 1 \right)^{1/2} \frac{A}{8R} \frac{m_e c^3}{e}. \quad (19).$$

$I_{\text{peA}} = \text{lim.}$ ,  $I_{\text{max}} = \text{max.}$ ,  $A$  is the chamber acceptance,  $E$  the total injection energy,  $E_0$  the rest energy and  $V_n$  the phase volume of the beam in the  $x, p_x/m_0$  and  $y, p_y/m_0$  planes. Numerical evaluation with  $E = E_0 = 100$  Mev,  $A = 2.5 \cdot 10^{-3}$  cm·rad, and  $R = 235$  m, gives  $I_{\text{max}} = 40$  ma, i.e.  $1.6 \cdot 10^{12}$  parti-

Card 4/6

S/089/62/013/003/002/007  
B102/B104

Achievement of maximum injection ...

cycles per accelerating cycle.  $I_{\text{lim}}$  depends only on  $V_{\text{II}}$  and  $V_{\text{kh}}$  and is attained when  $V_{\text{II}} = V_{\text{kh}}$ . This gives the expression

$$I_{\text{max}} = \frac{I_{\text{II}}}{2V_{\text{II}}} V_{\text{II}} = \frac{\mu_0 \omega_r S}{2\beta c} \left( \frac{\beta \lambda}{S} \right)^2 \left( \frac{c}{\lambda} \right)^2 \frac{\beta}{(1-\beta)^{3/2}} \frac{m_e c^3}{e} \quad (21),$$

where  $\lambda$  is the wavelength of the accelerating field in the injector. The following expression is got for the maximum ratio of aperture to focussing field frequency

$$\frac{a}{S} = \frac{e B_{\text{max}} S \sqrt{1-\beta^2}}{15 m_e c^3 \beta \sqrt{\sin^2 \frac{\mu_0}{2} + \frac{1}{2} \gamma_s}} \quad (24),$$

where  $B_{\text{max}}$  is the maximum induction. When  $\lambda$  increases, the aperture of the channel and  $I_{\text{max}}$  increase  $\propto \lambda^2$ , since  $S/\beta\lambda = \text{const.}$  Numerical evaluation with  $\cos \mu_s = 0.8$  ( $\mu_s$  - synchronous phase),  $\cos \mu_0 = 0.6$ ,  $S/\beta\lambda = 2$ ,

Card 5/6

Card 6/6

PLOTNIKOV, V.K.; Prinimal uchastiya; KAPCHINSKIY, I.M.

Selecting the shape of poles of quadrupole lenses. Prib. i tekhn.  
eksp. 7 no.2:29-33 Mr-Ap '62. (MIRA 15:5)

1. Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR.  
(Particle accelerators) (Electron optics)

L 02005-67 EWT(m)/EWP(1) IJP(c)

ACC NR: AM6023761

Monograph

51 UR

Kapchinskiy, Il'ya Mikhaylovich47  
B+1

Dynamics of particles in linear resonance accelerators (Dinamika chastits v lineynykh rezonansnykh uskoritelyakh) Moscow, Atomizdat, 66. 0309 p. illus., bibliog. 2,450 copies printed.

TOPIC TAGS: linear accelerator, electron accelerator, particle accelerator, ion beam focusing, particle beam, particle motion

PURPOSE AND COVERAGE: The book is devoted to a study of the motion of particles in linear resonance accelerators in which the particles are accelerated by high frequency traveling wave fields. The particle beam is separated by the field into bunches whose frequency equals the accelerating voltage frequency. From the point of view of particle dynamics, linear resonance accelerators can be divided into two types: in the first type (for heavy particles and low energy electrons) the phase velocity of the equivalent traveling wave is less than the speed of light; in the second type (for high energy electrons) it equals the speed of light. The motion of particles in the accelerating and focusing fields is coupled with the action of the inherent field of the beam and with the disordered spread of the particle thermal velocities determined by the phase volume of the beam. The theory of intense beams with consideration of both the finite phase volume and the finite current of the beam is developed by the author. The book is intended not only for specialists in accelerator technology but also for those interested in the problems of high intensity beam formation in other

Card 1/2

UDC: 531.3+539.12+621.384.62

L 02005-67

ACC NR: AM6023761

technical areas. The author thanks D. G. Koskarev and V. K. Plotnikov for valuable discussions and B. I. Bondarev and K. I. Guseva for compiling the synopsis of lectures forming the basis of the book.

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SUB CODE: 20/ SUBM DATE: 06Dec65/ ORIG REF: 060/ OTH REF: 072

*ns*  
Card 2/2

KAPCHINSKIY, I.M.

Defocusing of a beam of charged particles. Radiotekh. i elektron.  
8 no.6:985-990 Je '63. (MIRA 16:7)  
(Electron beams)

L 13372-63

BDS/ENT(1)/ENT(m)/ES(v)-2 AFFTC/ASD/SSD Pub-4

ACCESSION NR: AP3002712

S/0120/63/000/003/0015(0)19

AUTHOR: Kapchinskiy, I. M., Plotnikov, V. K.

61

60

TITLE: Magnetic quadrupole lenses for drift-tube type linear accelerators, 19.  
1. Lens requirements and selection of pole-piece shapeSOURCE: Pribory i tekhnika eksperimenta, no. 3, 1963, 15-19

TOPIC TAGS: magnetic quadrupole lens, linear accelerator

ABSTRACT: The problem of tolerable nonlinearity of the magnetic field in the quadrupole lenses is studied theoretically. Limitations are considered which are imposed on the shape of pole pieces by the small value of ratio of the drift-tube outside diameter to the aperture diameter. The authors find that: (1) with the number of focusing periods  $\tau$ , the tolerable field deviation from linear, at the edge of the beam-occupied region, is  $\Delta H/H \approx 45/\tau\%$ ; (2) the smallest size of the drift tubes is associated with the flat-pole lenses; the pole size should be so proportioned that the coefficient at the 5-th harmonic of the magnetic field expansion is zero. The flat-pole lenses are simple to manufacture

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L 13372-63

ACCESSION NR: AP3002712

and yield greater (as compared with the hyperbolic-pole lenses) maximum gradients because the working flux is smaller and the saturation occurs at stronger fields. Orig. art. has: 4 figures and 22 formulas.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki  
(Institute of the Theoretical and Experimental Physics)

SUBMITTED: 16Jul62

DATE ACQ: 12Jul62

ENCL: 00

SUB CODE: MS, SD

NO REF Sov: 002

OTHER: 001

Card 2/2

L 58915-65 EWT(m)/EPA(u)-2/EWA(m)-2 Pt-7 IJP(c) GS

ACCESSION NR: AT5007935

S/0000/64/000/000/0468/0470

AUTHOR: Kul'man, V. G.; Chistoy, V. B.; Kapchinskiy, I. M.

TITLE: Designing very long resonators for a linear proton accelerator with drift tubes

SOURCE: International Conference on High Energy Accelerators, Dubna, 1963. Trudy.  
Moscow, Atomizdat, 1964, 468-470

TOPIC TAGS: high energy proton accelerator, linear accelerator

ABSTRACT: The resonators of a 100-Mev linear accelerator-injector were designed on the basis of experimental and computed data. (I. M. Kapchinskiy, et al., present conference, p. 462.) The present report discusses this data. The geometric dimensions for adjusting the sections to the same resonance frequency with an accuracy of the order of 10.1% were found from empirical formulas based on a model of a half-section with movable bottom and changeable drift half-tubes. The lengths of the drift tubes were calculated on the basis of the potential distribution in the gaps. Calculations based on the theoretical work of V. G. Andreyev (NT-3161-40, Radiotekhnicheskiy institut AM SSSR, M. 1961) showed that the influence of the difference

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L 58915-65

ACCESSION NR: AT5007935

between the electrostatic and electromagnetic field distributions on the coefficient of flight time is very small up to the last accelerating gaps. This conclusion is verified also by a comparison of the fields measured in an electrolytic tank and in a high-frequency model of a section. The above-mentioned empirical formulas did not take into consideration the influence of the drift tubes' rods (diameter 60-70 mm) and the bellows (diameter 100 mm, height about 100 mm), which are installed at the base of the rods for mechanical uncoupling with the resonator and with projections inside the resonator. Therefore, after experimental determination of the influence of these design elements on the resonance frequency, the diameters of the resonators were corrected and finally found to equal, respectively, 132.4, 122, and 108.7 cm. The variation of the resonance frequency of the sections along the resonator was determined with rods and bellows present. An especially strong variation of the frequency is caused by the bellows in the first part of resonator I for a height of 1-3 m. In order to avoid a large field discontinuity, their influence was additionally compensated for by selecting suitable volumes for the connection plates of the adjustment hatches, which are situated in this part of the resonators. After preparation of the resonators it was necessary to select the number of plates for field equalization with accuracy of the order of 1-3%. A small number of plates cannot ensure the required accuracy of the field distribution, but a too large number of plates leads to design complications. With this in mind, a theoretical study

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L 58915-65

ACCESSION NR: AT5007935

was conducted which was based on the employment of the relation between the number of plates and the number of spatial field harmonics compensating for them. This study permitted a thorough evaluation of the accuracy of the field equalization  $\Delta E$  as a function of the number of plates. This dependence has the form

$$\left| \frac{\Delta E}{E} \right| < \frac{32}{\pi} \left( \frac{L}{\lambda} \right)^3 P_{\max} \cdot A(m, n),$$

where  $L/\lambda$ -ratio of the resonator length to wavelength,  $P_{\max}$ -greatest expected relative variation in the "local" frequency which is caused by errors in manufacture and in disregarded deviations from the form of the resonators,  $A$ -coefficient depending upon the number of drift tubes  $M$  and the number of adjustment plates  $m$ . A numerical evaluation showed that for a field equalization with accuracy of  $\pm 3\%$  in resonators I, II, and III the number of plates should be of the order of 70, 45, and 30 respectively. The above derived formula gives an enhanced number of plates. Experiments on the field equalization of resonator models showed that a smaller number of plates could be selected. On the basis of this and considerations of design convenience regarding the plate positions, the total number of plates was reduced to 50, 44, and 34 respectively in resonators I, II, and III. All plates have

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ACCESSION NR: AT5007935

the same dimensions (0.5x0.5 m), and their movement ensures a variation in resonance frequency of the order of 1%. For the sake of automatic build-up of the resonance frequency uniformly along the resonators, plates 200x400 mm in size were installed in the number 12, 12, and 10 in the resonators I, II, and III, respectively. They move simultaneously and automatically, and can vary the resonance frequency in the limits  $2 \cdot 10^{-5}$ . Their number was selected from the consideration that the greatest spatial field harmonic arising during operation should exert practically no influence on the field. For regulation of the field gradient in the limits of  $10^{-2} \text{ G}$ , at the end of each resonator a plate 0.45x0.45 m in size and a thickness of 1.5 mm was installed. The plates are controlled remotely. In order to verify the correctness of the selection of the main data for the resonators, models of resonators I and III on the approximate scale of 1:4 were built and investigated. The field was then easily adjusted with an accuracy of 3-4% with the help of the plates. The electric field measured close to the cylindrical wall of the resonator diminishes along the length. There is a considerable scatter of the experimentally obtained points, which is clarified by the errors in measurement and in the nonuniformity of the magnetic field. Experiments clarified how the field distribution varied during the operation of the plates for the regulation of the field gradient. Field differences did not exceed 1% and had the character of a "gradient." The electric field

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ACCESSION NR: AT5007935

Distribution in the models was measured by the method of perturbation with the aid of small metal spheres 4-5 mm in diameter. Fig. 3r' has 4 figures.

ASSOCIATION: Radiotekhnicheskiy institut AN SSSR (Radio Engineering Institute, AN SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF Sov: 002

OTHER: 000

Card 5/5

ACCESSION NR: AP4041008

8/0120/64/000/003/0026/0031

AUTHOR: Kapchinskiy, I. M.; Kronrod, A. S.

TITLE: Effect of the space charge on the phase oscillations of particles in an ionic linear accelerator

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1964, 26-31

TOPIC TAGS: ionic accelerator, linear accelerator, strong focusing accelerator, space charge effect

ABSTRACT: An integral equation is developed for the potential of a self-consistent Coulomb field of a beam:

$$k\Phi(\phi) = F(\phi) + k \int_{-\infty}^{\phi} R(\phi, s) \sqrt{1 - \Phi(s)} ds,$$

where  $\phi$  is the particle phase,  $k$  is a dimensionless auxiliary parameter for numerical solution,  $s = eH_0 w / p_0 v_0 C_0$ . This equation, valid for any relation between the longitudinal and cross dimensions of clusters, is numerically solved with these boundary conditions:

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ACCESSION NR: AP4041008

$$\frac{d\Phi}{d\psi}(\psi_0) = 0; \quad \frac{d^2\Phi}{d\psi^2}(\psi_0) < 0. \quad \Phi(\psi_0) = 1; \quad \Phi(\psi_n) = 1.$$

The effect of the maximum cluster current upon the phase-stability region, phase-oscillation frequency, mean cluster current, and other parameters is evaluated. A phase-density distribution is considered when the clusters do not pulsate. The beam current limitation due to longitudinal disgregation is compared with that due to cross disgregation in a strong-focusing accelerator. It is found that the effect of the space charge upon the phase-stability region is weaker than in the case when the cluster is approximated by a uniformly charged ellipsoid. Orig. art. has: 7 figures and 25 formulas.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE  
(Institute of Theoretical and Experimental Physics, GKAE)

SUBMITTED: 03Jul63

ATD PRESS: 3079

ENCL: 00

SUB CODE: NP

NO REF Sov: 003

OTHER: 001

Card 2/2

L 4228-56 ENT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS

ACCESSION NR: AT5007962

S/0000/64/000/000/0906/0911

AUTHOR: Kapchinskiy, I. M.; Kronrod, A. S.

TITLE: Influence of space charge upon phase oscillations of particles in the linear ion accelerator 19

SOURCE: International Conference on High Energy Accelerators, Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 906-911

TOPIC TAGS: high energy accelerator, ion acceleration, focusing accelerator

ABSTRACT: The application of rigid focusing in linear accelerators with wavelength of the high-frequency field  $\lambda = 1.5-2$  meters has created real possibilities for forming proton beams with intensities up to 100 milliamperes per pulse with comparatively small expenditures of power upon focusing. The planning of such accelerators must take into consideration the longitudinal forces of electrostatic repulsion, which lead to deterioration of the conditions of autophasing. The influence of the bunches' own space charge upon the phase oscillations of the particles in linear accelerators has already been studied under the assumption that each bunch represents a uniformly charged ellipsoid (Akhiyezer, A. I.; Lyubarskiy, G.

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L 4228-66

ACCESSION NR: AT5007962

Ya., et al., *Teoriya i raschet lineynykh uskoriteley* [Theory and Design of Linear Accelerators]. Moscow, Gosatomizdat 1962, p. 114; Vlasov, A. D., *Nauchn. trudy RAI AN SSSR* [Scientific Works of Radiophysics Apparatus Institute, Academy of Sciences SSSR], 2, n. 4, 27 (1960)). It remained unclear how well such an assumption approximates the self-consistent distribution of the charge in the bunch and whether the relations obtained under this assumption corresponds to the actual behavior of the bunches. The solution for the self-consistent longitudinal field of a beam accelerated in a ring machine under the assumption that the length of each bunch exceeds considerably its transverse size was obtained earlier (Nilsen, Sessler. *Rev. Sci. Instrum.* 30, 80 (1959)). In the initial part, however, of the accelerator (where the influence of the spatial charge is especially considerable) the longitudinal and transverse dimensions of the bunches are commensurable and the simplifying assumption made in the work (Nilsen, cit.) is poorly fulfilled. In the present work the authors have obtained an integral equation for the potential of the self-consistent Coulomb field of the beam, such that the equation is correct for any ratios of the longitudinal and transverse dimensions of the bunches. The work shows that the influence of the spatial charge upon the magnitude of the region of phase stability is considerably weaker than in the case where the bunch is approximated by a uniformly charged ellipsoid. The authors derive the fundamental

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112246  
ACCESSION NR: AT5007962

al equations, which are strongly nonlinear, obtain the numerical solution of the integral equation, and discuss the results of the numerical solution in graphical form. Orig. art. has: 7 figures, 23 formulas.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE SSSR (Institute of Theoretical and Experimental Physics, GKAE SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF Sov: 003

OTHER: 001

Card 3/3 Sp

KAPCHINSKIY, I.M.; KRONROD, A.S.

Effect of a space charge on the phase oscillations of particles  
in a linear ion accelerator. Prib. i tekhn. eksp. 9 no.3:26-31  
My-Je '64 (MIRA 18:1)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudar-  
stvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

Card 1/4

... the steering of the shunt-connected shunt magnet. The beam is connected with the magnetic field in a way that is invariant under the rotation of the beam. The specific acceleration and the acceptance of the beam are determined by the wave length of the magnetic field.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420013-4

field. The shunt-impedance is measured as the square of the current loss in the copper divided by the square of the amplitude of the accelerating field. The shunt-impedance is measured as the square of the current loss in the copper divided by the square of the amplitude of the accelerating field. The shunt-impedance is measured as the square of the current loss in the copper divided by the square of the amplitude of the accelerating field.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420013-4"

1715-45

ACCESSION NR: AT5007934

1715-45  
1235 (1962)) For the chosen values of the specific acceleration and

by the transverse lateral repulsion (I. M. Kapchinskij, A. S. Kromrod, presented at the conference, p. 906). It is assumed that the acceleration will be mainly due to the energy stored in the resonators. The field drop during the 12 microseconds

is negligible if the synchrotron frequency is high enough. The field drop is calculated if a three revolution period is assumed. The field drop is

calculated for the case of a 12 microsecond revolution period.

Two schemes of the injector are considered. The first scheme is

the second scheme of the system, the feasibility of which is discussed. The design of the injector was carried out under the scientific guidance of I. M. Kapchinskij and A. L. Mints. The design was developed by the joint participation of the following associates of the Institute of Theoretical and Experimental Physics,

L-Card 3/4

4 1 : N NR: AT5007934

... Theznikow, M. M. Triant, V. V. Tisich, V. V. Tsvadze, V. M. ...  
... Tsvetkov, I. V. Dorkin, ...  
... N. N. Tsvetkov, ...

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420013-4

ASSOCIATION: Radiotekhnicheskiy Institut AN SSSR (Radio Engineering Institute,



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420013-4"

1964 - Rev. Accelerator

1964 - Accelerator  
1964 - Accelerator

TOPIC TAGS: linear accelerator, high energy accelerator

Linear accelerators permit a considerable increase in energy over the range of frequency accelerator channels. It is possible to apply only electron and automatic regulation systems, which make it easy to obtain

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Card 1/3

L 58916-65

ACCESSION NR: AT5007936

up to the following track, and after arrival of the second error signal of the same

Cgrd 213

L 58916-65

ACCESSION NR: AT5007936

the linear system and the principal system errors and their propagation and a system of automatic control for the fixed phase relation between the two transducers. Amplitude measurement is carried out by a linear potentiometer connected to the receiver. The transducers are connected with loops in the receiver, with the aid of a 100 mm cable, in which a traveling-wave state is maintained. The receiver converts the high-frequency pulse into a video pulse, whose amplitude is measured by a compensation method with manual setting of the control voltage. The measurement error is 0.5%. Aperture of the transducers is 10 mm. The resolution of the linear system is 0.05 mm. The operating temperature is -10 to +40°C. The pulse repetition time can vary from 12 microseconds for one measurement to 100 microseconds for three. The repetition rate is 1000 pulses per second. See the following figures.

ORIGINATOR: Radiotekhnicheskiv Institut AN SSSR (Radio Engineering Institute, AN SSSR)

DATE: 26 May 64

ENCL: 00

SIMP CODE: EE, MP

NO REF SOV: 002

OTHER: 000

Card 3/3 *dm*

KAPCHINSKIY, LEV MIKHAYLOVICH

ZAGIK, Semen Yefimovich; KAPCHINSKIY, Lev, Mikhaylovich; HERG, A.I.,  
redaktor; DZHIGIT, I.S.,redaktor; KULIKOVSKIY, A.A.,redaktor;  
SMIRNOV, A.D.,redaktor; TARASOV, P.I.,redaktor; TRAMM, B.F.,redaktor;  
CHUCHIK, P.O.,redaktor; SHAMSHEV, V.I.,redaktor; OVCHARENKO, Yo.  
P., redaktor; VORONIN, K.P.,tekhnicheskij redaktor

[Television reception antennas] Priemye televizionnye antenny.  
Moskva, Gos. energ. izd-vo, 1956. 47 p. (MLRA 10:4)  
(Television--Antennas)

KAPCHINSKIY, L.M.

USSR/ Electronics - Electromagnetic reception

Card 1/1      Pub. 89 - 18/30

Authors : Kapchinskiy, L.

Title : Television Antennas

Periodical : Radio 1, 37 - 39, Jan 56

Abstract : The characteristics of a receiving antenna are explained with emphasis on the advantages of having high directional selectivity to eliminate static and shadows. Single-program, external, receiving antennas with little directional selectivity, intended for receiving signals over distances of 20 - 25 km are dealt with at length, followed by an explanation of the single-program, external, receiving antennas with great directional selectivity, intended for receiving signals over distances of 25 - 30, 30 - 40, and 50 - 70 km. Data are also given for designing antennas for reception over distances of 70 - 80 km. Drawings, graphs, and tables on unnumbered pages between pages 32 and 33.

Institution : .....

Submitted : .....

112-57-8-17760

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 8,  
p 271 (USSR)

AUTHOR: Kapchinskiy, L. M.

TITLE: A Two-Channel Meter-Wave Cutoff Attenuator (Dvukhkanal'nyy  
predel'nyy atennyuator metrevkh voln)

PERIODICAL: Tr. Televis. fil.-labor. M-vo radiotekhn. prom-sti SSSR  
(Transactions of the television Branch Laboratory, Ministry of the  
Radio-Engineering Industry, USSR), 1956, Nr 1, pp 45-47

ABSTRACT: A two-channel meter-wave attenuator is a round cutoff waveguide  
energized at the same or at different frequencies by two coupling loops  
fed by two independent sources. A pickup loop lying in the diametrical  
plane of the waveguide and movable along the waveguide axis serves as  
the receiving element. The running attenuation is 1 db/mm. Relative  
calibration of the attenuator in its linear section is practically  
independent of frequency within a broad frequency range. The working  
band of the attenuator is 50 to 70 mc. It permits inserting a

Card 1/2

KAPCHINSKIY, L. M.

USSR/Electronics - Television antennas

Card 1/1 Pub. 89 - 16/33

Authors : Kapchinskiy, L.

Title : Television antennas

Periodical : Radio 2, 34-39, Feb 56

Abstract : A comparison is made between the conditions under which an outside and an inside antenna work. These are found to be quite different. Under the reflecting effect of walls and metal parts of a building in a majority of cases the electromagnetic field inside a room is found to be a combination of horizontally and vertically polarized waves. These special factors are taken into consideration in designing inside antennas for which technical data and explanations are given. Types of antennas described are called: "telescope type," "abridged linear type," "ring type," and built-in type." Illustrations; diagrams.

Institution : .....

Submitted : .....

SOV/112-59-1-179 3

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1, p 254 (USSR)

AUTHOR: Kapchinskiy, L. M.

TITLE: A Case of Folded-Dipole Resonance

PERIODICAL: Tr. Televizion. fil.-labor., 1956, Nr 3, pp 63-68

ABSTRACT: Bibliographic entry.

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KAPCHINSKIY, L.M.

PHASE I BOOK EXPLOITATION

SOV/4401

Zagik, Semen Yefimovich, and Lev Mikhaylovich Kapchinskiy

Priyemnyye televizionnyye antenny (Television Receiving Antennas). 2nd ed., rev. and enl. Moscow, Gosenergoizdat, 1958. 79 p. (Series: Massovaya radiobiblioteka, vyp. 306) 100,000 copies printed.

Ed.: F.I. Tarasov; Tech. Ed.: L.Ya. Medvedev; Editorial Board: A.I. Berg, V.A. Burlyand, V.I. Vaneyev, Ye.N. Genishta, I.S. Dzhigit, A.M. Kanayeva, E.T. Krenkel', A.A. Kulikovskiy, A.D. Smirnov, F.I. Tarasov, and V.I. Shamshur.

PURPOSE: This booklet is intended for the amateur interested in television.

COVERAGE: The booklet describes in an easily understandable style various types of outdoor and indoor antennas intended for the reception of one or several television programs. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

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| Ch. I. Special Features of the Reception of Television Transmissions | 3  |
| Ch. II. Parameters of Television Receiving Antennas                  | 11 |
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ZAGIK, Semen Yefimovich; KAPCHINSKIY, Lev Mikhaylovich; IVANITSKIY, V.Yu.,  
red.; MATVEYEV, G.I., tekhn.red.

[Coaxial cables] Koaksial'nye knbeli. Moskva, Gos.energ.ind-vo,  
1959. 39 p. (Massovaya radiobiblioteka, no.324) (MIRA 12:4)  
(Coaxial cables)

ZAGIK, Semen Yefimovich; KAPCHINSKIY, Lev Mikhaylovich; IVANITSKIY,  
V.Yu., red.; VORONIN, K.P., tekhn. red.

[Television receiving antennas] Primenye televizionnye anten-  
ny. Izd.3., perer. i dop. Moskva, Gosenergoizdat, 1962. 127 p.  
(Massovaya radiobiblioteka, no.386) (MIRA 15:7)  
(Television--Antennas)

YAFCHENKO, L.N.

Some causes of unusually high reservoir pressures. Gazi. nefti i  
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1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy  
institut, Leningrad.

KOSHELEV, I.I., kand.tekhn.nauk; ESKIN, N.B., inzh.; TARATUTA, V.A.,  
inzh.; KAPCHITS, D.A., inzh.; ABRYUTINA, N.V., inzh.; POLYAKOVA,  
V.P., inzh.; LETKOV, I.G., inzh.

Study of salt extraction by the flushing and separating  
system of the PK-24 boiler. Elek. sta. 35 no. 4:10-15 Ap '64.  
(MIRA 17:7)

PECHKO, M.A., inzh.; DUBROVSKIY, Ye.M., inzh.; KAPCHITS, Z.F., inzh.

Low power PKN-13 water-tube boiler designed by the Central  
Scientific Research Institute for Boilers and Turbines.  
Energetik 9 no.1:28-31 Ja '61. (MIRA 16:7)

(Boilers)

KAPCHITS-GUREVICH, M.R.

Treatment with allisate of lambliasis in children. Sovet. med. 17 no.7:  
34-35 July 1959.  
(GIML 25:1)

1. Of the Clinic for Children's Diseases (Director — Prof. Ye.Ye. Granat)  
of Staling Institute for the Advanced Training of Physicians.

SK

11.1900

S/044/62/000/009/008/069  
A060/A000AUTHOR: Ginalski, Czeslaw, Kapcia, Andrzej

TITLE: On a class of equations solved with respect to a function

PERIODICAL: Referativnyy zhurnal, Matematika, no. 9, 1962, 25, abstract 9B132  
("Zesz. nauk. Politechn. częstochow.", 1960, no. 7, 3 - 6; Polish;  
Summaries in Russian, English)

TEXT: The paper considers an equation of the form

$$y' = xy + \varphi(x)f(y') + g(y') . \quad (1)$$

By differentiating both sides, it is brought into the form

$$-f(z)u' = g'(z) + f'(z)u + \varphi^-(u) , \quad (2)$$

where  $z = y'$ ,  $u = \varphi(x)$ ,  $\varphi^-$  is the function inverse to  $\varphi$ . The functions  $\varphi(x)$  for which equation (2) takes the form of known equations are indicated and consequently equation (1) is solved by known methods.

From Author's summary

[Abstracter's note: Complete translation]

Card 1/1

VB

KAPCIA, Andrzej

Studies on the regularities and peculiarities of integrals of a  
certain generalization of the Clairaut and D'Alembert equations.  
Nauki podstaw Czestochowa no.7:73-104 '64.

1. Department of Mathematics of the Technical University, Czestochowa.

KAPCIA, Tadeusz, mgr

Address to the editors of the monthly "Wiadomosci  
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1. Dyrektor Zjednoczenia Przemyslu Rafinerii Nafty, Warszawa.

KAPCIA, Tadeusz, dyr. mgr.; KOSSOWICZ, Ludwik, mgr. inz.

Twenty years of the petroleum refining industry in the Polish  
People's Republic. Nafta 20 no. 9s236-243 3'64

1. Association of Petroleum Refining Industry, Krakow.

KAPCSÓS, Pal, oklevéles villamosmérnök

Mains frequency inductors with iron cores. Villamosság 10  
nr. 71201-205 J1 '62.

Zielinski A, Kaprynska E, Szczerba Z, A Simple Mechanism Device  
for Electromagnetic Distillation of Reflux

Simple mechaniczne urządzenie do zasysania  
wody z destylatora "Fugny" Przemysł Chemiczny  
180-161 1 tab.

A description of a device imparting electric impulses to the electromagnetic valve, dividing reflux in the head of a precision distillation column with aid of a rotating shield. The shield of the dielectric is partially covered with a metal sheet specially shaped to fit. The time for opening and closing the valve is controlled by shifting a contact brush along the radius of the shield at a rate corresponding to the rate of rotation of the shield.

*Kapczynska, Maria*  
DADLEK, Jozef, prof. Dr; KAPCZYNSKA, Maria, Dr; MOJCIAK, Zofia, Dr

Investigation on strychnine. Bull. Soc. amis sc. Poznan, ser. C  
No.4:9-12 1954.

1. Institut de Pharmacologie et Institut de Medecine Legale de  
l'Academie de Medecine a Poznan.  
(STRYCHNINE, determination,  
forensic aspects)

KAPCZYNSKA, MARIA

DADLEZ, Jozef, prof. Dr; KAPCZYNSKA, Maria, Dr; WOJCIAKOWA, Zofia, Dr

Scheme for qualitative analysis of alkaloids. Bull. Soc. amis sc. Poznan, ser. C No.4:13-18 1954.

1. Institut de Pharmacologie et Institut de Medecine Legale de l'Academie de Medecine a Poznan.

(ALKALOIDS, determination,  
qualitative analysis)

KAPCZYNSKA, Maria, Dr; MAKUR, Mieczyslaw, Dr; RYGLEWICZ, Karol, Dr

Micromethod of determination of ether in the blood. Bull. Soc. amic sc. Poznan, ser.C No.4:45-50 1954.

1. Institut de Pharmacologie, Institut de Medicine Legale et Clinique de Gynaeologie de l'Academie de Medecine a Poznan.

(ETHER, ETHYL, in blood,

determ., micromethod)

(BLOOD,

ether, ethyl, determ., micromethod)

DADLEZ, J.; KAPOZYNSKA, M.; WOJCIAKOWA, Z.

Qualitative colorimetric analysis of alkaloids. Farm. polska 10  
no.8:195-201 Aug 54.

1. z Zakladu Farmakologii Akademii Medycznej w Poznaniu. Kierownik:  
prof. dr J.Dadlez, i z Zakladu Medycyny Sadowej Akademii  
Medycznej w Poznaniu.

(ALKALOIDS, determination,  
colorimetry)

(COLORIMETRY,  
of alkaloids)

RYGLEWICZ; LAPCZYNSKA; MAZUR

Effect of ether anaesthesia on infants from caesarean section.  
Ginekol pol 25 no.2:175-184 Ap-Je '54. (EHAL 3:8)

1. Z Kliniki Paliwnictwa i Chorob Kobieczych Akademii Medycznej  
w Poznaniu, Dyrektor: prof. dr med. Irenaeus Rosskowski. 2. Z  
Zakladu Farmakologii Akademii Medycznej w Poznaniu, Dyrektor:  
prof. dr Dadlez.

(~~ETHER, ETHYL, anaesthesia and analgesia,~~

~~\*in caesarean section, eff. on fetus)~~

(~~CAESAREAN SECTION, anaesthesia and analgesia,~~

~~\*ether, ethyl, eff. on fetus)~~

(~~ANESTHESIA,~~

~~\*ether, ethyl, in caesarean section, eff. on fetus)~~